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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/977,578 | HAMALAINEN ET AL. | |
| | Examiner | Art Unit | |
| | Phuongchau Ba Nguyen | 2665 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-9,11,12 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 3-5,10,13-15 and 20-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5-30-3</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claim 32 is objected to because of the following informalities: in line 2, "more" should be changed to ---mode---. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 6, 11, 12, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior in view Vukovic (US2002/0198012).

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Regarding claim 1,

The admitted prior art discloses in a compressed mode of a mobile CDMA communication network, in which the transmission and reception in mobile terminal are halted or ceased for a short time, in order to perform the measurements on the other frequencies, see page 2, lines 10-14 (corresponding to *a method of implementing a compressed mode of operation in a mobile communication network in which data transmission and reception in user equipment is ceased so a required measurement can be made*).

The admitted prior art does not disclose expressly (1) *characterized in that the power level of data transmission in the user equipment is adjusted to a correct power level before a subsequent data transmission is sent*.

Vukovic (US2002/0198012) discloses Method and Apparatus for Allocating Communication Resource in a Broadband Communication System. In Vukovic, a mobile station MS 302-fig.3 adjusts a power level (assuming to a correct power level) of each access request of the series of access request until receiving an "ACK" or a "NAK" back from the base station 306-fig.3 for transmission of a message. In other words, the MS 302-fig.3 adjusts the power level of each access request for each subsequent message's transmission, see page 3, 0021-0023 (corresponding to (1)).

The admitted prior art and Vukovic are analogous art because they are from a similar solving area, controlling the power for transmission of messages between mobile and base stations.

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a mechanism of adjusting power of access request from mobile for transmission of messages in Vukovic with the admitted prior art.

The suggestion/motivation for doing so would have been to provide readjusted power level after each halt during the compressed mode of operation for preventing a closed-loop power control distortion, thus reducing the frame error rate and block error rate.

Therefore, it would have been obvious to combine Vukovic with the admitted prior art to obtain the invention as specified in claim 1.

Regarding claim 2,

The admitted prior art further discloses *that the compressed mode is implemented using a single frame method*, see page 2, lines 19-21.

Regarding claim 6,

The admitted prior art discloses all claimed limitations employing the compressed mode of operation *during a handover procedure*, except (1) *the power level of data transmission in the user equipment is adjusted to a correct power level before a subsequent data transmission is sent*.

Vukovic (US2002/0198012) discloses Method and Apparatus for Allocating Communication Resource in a Broadband Communication System. In Vukovic, a mobile station MS 302-fig.3 adjusts a power level (assuming to a correct power level) of each access request of the series of access request until receiving an "ACK" or a "NAK" back from the base station 306-fig.3 for transmission of a message. In other words, the MS 302-fig.3 adjusts the power level of each access request for each subsequent message's transmission, see page 3, 0021-0023 (corresponding to (1)).

The admitted prior art and Vukovic are analogous art because they are from a similar solving area, controlling the power for transmission of messages between mobile and base stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a mechanism of adjusting power of access request from mobile for transmission of messages in Vukovic with the admitted prior art.

The suggestion/motivation for doing so would have been to provide readjusted power level after each halt during the compressed mode of operation for preventing a closed-loop power control distortion, thus reducing the frame error rate and block error rate.

Therefore, it would have been obvious to combine Vukovic with the admitted prior art to obtain the invention as specified in claim 6.

Regarding claim 11,

The admitted prior art discloses in a compressed mode of a mobile CDMA communication network, in which the transmission and reception in mobile terminal (*user equipment*) are halted or ceased for a short time, in order to perform the measurements on the other frequencies by a not-shown module, see page 2, lines 10-14 (corresponding to *user equipment for a mobile communication network having a compressed mode module for implementing a compressed mode of operation in which data transmission and reception is ceased so a required measurement can be made*).

The admitted prior art does not disclose expressly (1) *that the user equipment includes an adjust power level module for adjusting the power level of data transmission to a correct power level before a subsequent data transmission is sent*.

Vukovic (US2002/0198012) discloses Method and Apparatus for Allocating Communication Resource in a Broadband Communication System. In Vukovic, a mobile station MS 302-fig.3 comprises a not-shown module for adjusting a power level (assuming to a correct power level) of each access request of the series of access request until receiving an "ACK" or a "NAK" back from the base station 306-fig.3 for transmission of a message. In other words, the MS 302-fig.3 comprises a not-shown module for adjusting the power level of each access request for each subsequent message's transmission, see page 3, 0021-0023 (corresponding to (1)).

The admitted prior art and Vukovic are analogous art because they are from a similar solving area, controlling the power for transmission of messages between mobile and base stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a mechanism of adjusting power of access request from mobile for transmission of messages in Vukovic with the admitted prior art.

The suggestion/motivation for doing so would have been to provide readjusted power level after each halt during the compressed mode of operation for preventing a closed-loop power control distortion, thus reducing the frame error rate and block error rate.

Therefore, it would have been obvious to combine Vukovic with the admitted prior art to obtain the invention as specified in claim 11.

Regarding claim 12,

The admitted prior art further discloses during a compressed mode the mobile terminal is halted so that a not-shown module in the mobile terminal performs measurements on other frequencies and the compressed mode is implemented a single frame method, see page 2, lines 10-21 (correspond to *that the compressed mode module implements the compressed mode using a single frame method*).

Regarding claim 16,

The admitted prior art discloses all claimed limitations at mobile terminal having a not-shown module (*a handover procedure module having the compressed module therein*) for implementing the compressed mode of operation *during a handover procedure*, except (1) *that the user equipment includes an adjust power level module for adjusting the power level of data transmission to a correct power level before a subsequent data transmission is sent.*

Vukovic (US2002/0198012) discloses Method and Apparatus for Allocating Communication Resource in a Broadband Communication System. In Vukovic, a mobile station MS 302-fig.3 comprises a not-shown module for adjusting a power level (assuming to a correct power level) of each access request of the series of access request until receiving an "ACK" or a "NAK" back from the base station 306-fig.3 for transmission of a message. In other words, the MS 302-fig.3 comprises a not-shown module for adjusting the power level of each access request for each subsequent message's transmission, see page 3, 0021-0023 (corresponding to (1)).

The admitted prior art and Vukovic are analogous art because they are from a similar solving area, controlling the power for transmission of messages between mobile and base stations.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a mechanism of adjusting power of access request from mobile for transmission of messages in Vukovic with the admitted prior art.

The suggestion/motivation for doing so would have been to provide readjusted power level after each halt during the compressed mode of operation for preventing a closed-loop power control distortion, thus reducing the frame error rate and block error rate.

Therefore, it would have been obvious to combine Vukovic with the admitted prior art to obtain the invention as specified in claim 16.

5. Claims 7-9, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior in view Vukovic (US2002/0198012) as applied to claims 1, 6, 11, 16 above, and further in view of Tigerstedt (US 2002/0187784).

Regarding claims 7 & 17,

The modified admitted prior art disclose all claimed limitations except (1) *that the handover procedure is a hard handover*.

However, in the same field of endeavor, Tigerstedt (US 2002/0187784) discloses Method of WCDMA Coverage Based Handover Triggering, in which a hard handover technique is employed in cellular telecommunication systems for mobile station moving between different cells of the WCDMA network, see page 1, 0007 (corresponding to (1)).

The modified admitted prior art and Tigerstedt are analogous art because they are from similar problem solving area, handover in mobile communication systems to

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keep a connection for a mobile station from being dropped while moving between different cells of the WCDMA network.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the hard handover technique of Tigerstedt with the admitted prior art.

The suggestion/motivation for doing so would have been to prevent a correction for a mobile station from being dropped while moving from one cell to another.

Therefore, it would have been obvious to combine Tigerstedt with the admitted prior art to obtain the invention as specified in claim 7.

Regarding claims 8 & 18,

The modified admitted prior art disclose all claimed limitations except *that the handover procedure is (1) an intersystem handover between two wideband code division multiple access networks, (2) a handover between frequency division duplex and time division duplex modes, or (3) a handover between a wideband code division multiple access network and another network such as a GSM network.*

However, in the same field of endeavor, Tigerstedt (US 2002/0187784) discloses Method of WCDMA Coverage Based Handover Triggering, in which a handover between WCDMA 30-fig.1 to GSM-20-fig.1, see page 3, 0040 (corresponding to (3)).

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The modified admitted prior art and Tigerstedt are analogous art because they are from similar problem solving area, handover in mobile communication systems with different coverage.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the handover technique of Tigerstedt with the admitted prior art.

The suggestion/motivation for doing so would have been to provide continuing in communication to mobile station when moving from one cell to another in different coverage, e.g. WCDMA, GSM.

Therefore, it would have been obvious to combine Tigerstedt with the modified admitted prior art to obtain the invention as specified in claim 8.

Regarding claim 9,

The modified admitted prior art disclose all claimed limitations except (1) *that the measurement is an inter-frequency measurement.*

However, in the same field of endeavor, Tigerstedt (US 2002/0187784) discloses Method of WCDMA Coverage Based Handover Triggering, in which a mobile terminal initiates a search for a new target cell using measurements on other WCDMA frequency (IF-inter frequency) and/or GSM frequency band (IS-inter system), see page 3, 0046 (corresponding to (1)).

The modified admitted prior art and Tigerstedt are analogous art because they are from similar problem solving area, handover in mobile communication systems with different coverage.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the handover technique of Tigerstedt with the modified admitted prior art.

The suggestion/motivation for doing so would have been to provide continuing in communication to mobile station when moving from one cell to another in different coverage, e.g. WCDMA, GSM, and to increase power at mobile station and to avoid degradation of the link.

Therefore, it would have been obvious to combine Tigerstedt with the modified admitted prior art to obtain the invention as specified in claim 9.

Regarding claim 19,

The modified admitted prior art discloses all claimed limitations except (1) *that the handover procedure module has a measurement module for making an inter-frequency measurement.*

However, in the same field of endeavor, Tigerstedt (US 2002/0187784) discloses Method of WCDMA Coverage Based Handover Triggering, in which a not-shown module (*a measurement module*) in a mobile terminal is initiating a search for a new

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target cell using measurements on other WCDMA frequency (IF-inter frequency) and/or GSM frequency band (IS-inter system), see page 3, 0046 (corresponding to (1)).

The modified admitted prior art and Tigerstedt are analogous art because they are from similar problem solving area, handover in mobile communication systems with different coverage.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the handover technique of Tigerstedt with the modified admitted prior art.

The suggestion/motivation for doing so would have been to provide continuing in communication to mobile station when moving from one cell to another in different coverage, e.g. WCDMA, GSM, and to increase power at mobile station and to avoid degradation of the link.

Therefore, it would have been obvious to combine Tigerstedt with the modified admitted prior art to obtain the invention as specified in claim 9.

Allowable Subject Matter

6. Claims 3-5, 10, 13-15, 20-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Phuongchau Ba Nguyen
Examiner
Art Unit 2665